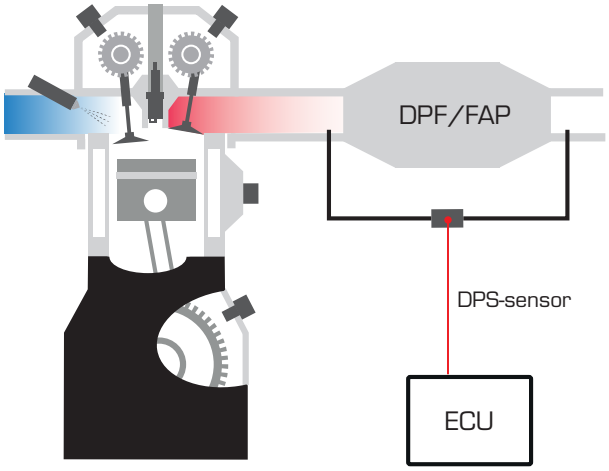
Technical info

DPS-sensors

The DPS-sensor (Differential Pressure Sensor) is used on diesel engines to determine the pressure difference between the exhaust gas inlet and outlet of the diesel particulate filter (DPF/FAP). Combined with information on i.e. exhaust gas temperature, engine speed and airflow the vehicle's engine control (ECU) determines when to initiate a regenerating proces of the filter, where the accumulated soot is burned.

System design



Function

The DPS sensors electronic circuit is fitted with a pressure sensor that seperates two chaimbers inside the DPS-sensors housing. The pressure sensor generates a voltage signal between 0 and 5 volts. The output voltage inreases when the pressure difference increases.

On all types of DPS-sensors, the inlet pressure is always meassures via a hose that connects the DPS-sensor to the DPF/FAP-filters inlet. The outlet pressure is either meassured as the ambient pressure via a hole in the housing of the sensor or via a hose that is connected to the DPF/FAP-filters outlet.

Types

There are mainly two types of DPS-sensors:

- 1-hose - determines the outlet ambient pressure via a hole in the housing of the sensor
- 2-hose - determines the inlet and outlet pressure via two hoses connected to the DPF/FAP-filter

Quality

- OE-Quality
- 100% functionality test before final approval

Numbering system

8823 ZZZZZ: 8823=product group, ZZZZZ=continious numbering

Cross section Illustration of a DPS-sensor